IN THE CLAIMS:

1. (Currently Amended) A method for providing accelerated loading of an operating system, comprising the steps of:

maintaining a list of boot data used for booting a computer system;

preloading the boot data into a cache memory upon initialization of the computer system, wherein preloading the boot data comprises accessing compressed boot data from a boot device; and

servicing requests for boot data from the computer system using the preloaded boot data, wherein servicing requests comprises accessing compressed boot data from the cache and decompressing the compressed boot data.

2. (Original) The method of claim 1, wherein the boot data comprises program code associated with one of an operating system of the computer system, an application program, and a combination thereof.

3. (Canceled)

4. (Currently Amended) The method of claim 1 3, wherein the method steps are performed by a data storage controller connected to the boot device.

5. (Original) The method of claim 1, further comprising the step of updating the list of boot data during the boot process.

6. (Original) The method of claim 5, wherein the step of updating comprises adding to the list any boot data requested by the computer system not previously stored in the list.

7. (Original) The method of claim 5, wherein the step of updating comprises removing from the list any boot data previously stored in the list and not requested by the computer system.

8. (Canceled)

9. (Original) The method of claim 1, wherein the method steps are program instructions that are tangibly embodied on a program storage device and readable by a machine to execute the method steps.

10. (Currently Amended) A method for providing accelerated launching of an application program, comprising the steps of:

maintaining a list of application data associated with an application program;

preloading the application data into a cache memory upon launching the application program, wherein preloading the application data comprises accessing compressed application data from a persistent storage device; and

servicing requests for application data from a computer system using the preloaded application data, wherein servicing requests comprises accessing compressed application data from the cache and decompressing the compressed application data.

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11. (Canceled)

12. (Original) The method of claim 10, wherein the method steps are program instructions that are tangibly embodied on a program storage device and readable by a machine to execute the method steps.

13. (Original) A boot device controller for providing accelerated loading of an operating system of a host system, the boot device controller comprising:

a digital signal processor (DSP) or controller comprising a data compression engine (DCE) for compressing boot data stored to a boot device and for decompressing compressed boot data retrieved from the boot device;

a programmable logic device, wherein the programmable logic device is programmed by the DSP or controller digital signal processor to (i) instantiate a first interface for operatively interfacing the boot device controller to a the boot device and to (ii) instantiate a second interface for operatively interfacing the boot device controller to the host system;

a cache memory device; and

a non-volatile memory device, for storing logic code associated with the DSP or controller, the first interface and the second interface, wherein the logic code comprises instructions executable by the DSP or controller for maintaining a list of boot data used for booting the host system, for preloading the compressed boot data into the cache memory device upon initialization of the host system, and for decompressing the preloaded compressed boot data

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to service ~~and servicing~~ requests for boot data from the host system ~~using the preloaded~~ ~~compressed boot data~~.

14. (Canceled)

15. (Currently Amended) The boot device controller of claim 13, wherein the logic code in the non-volatile memory device further comprises program instructions executable by the DSP or controller for maintaining a list of application data associated with an application program; preloading the application data upon launching the application program, and servicing requests for the application data from the host system using the preloaded application data.

16. (Canceled)